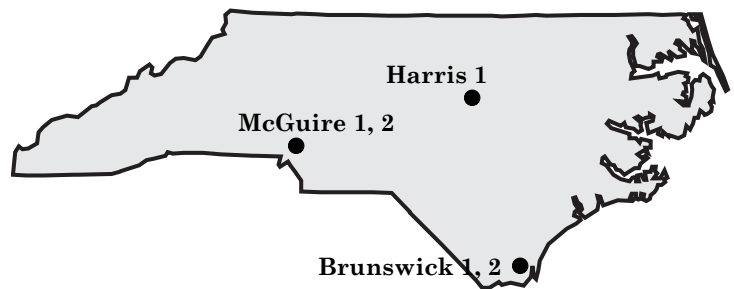


Nuclear Energy in North Carolina

July 2007

North Carolina's Electricity Generation

Nuclear	31.8%
Coal	60.2%
Oil	0.3%
Gas	2.5%
Hydro	3.5%
Renewable and Other	1.7%



Source: EIA, 2006



Nuclear Power Plants in the State

	City	Capacity (MW)	2006 Generation (MWh)	2004-2006 3-year Average Capacity Factor (%)
Brunswick 1	Southport	938	7,180,823	89.3
Brunswick 2	Southport	937	7,361,266	91.3
McGuire 1	Cornelius	1,100	9,967,226	93.9
McGuire 2	Cornelius	1,100	8,424,601	93.2
Shearon Harris 1	New Hill	900	7,029,268	92.8
Total		4,975	39,963,184	92.1

Source: Energy Information Administration

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Clean Air Benefits

Economic Growth and Emission-Free Electricity

North Carolina has experienced an average growth in Gross State Product of 2.2 percent per year over the past 5 years. To keep North Carolina's economy growing, the state will need new sources of power. At the same time, parts of North Carolina must deal with poor air quality. Emission-free sources, like nuclear power plants, supply safe, reliable and affordable power to meet the state's economic growth without polluting the air.

Status of the State's Air Quality

The central part of North Carolina from Charlotte thru Greensboro to the Raleigh-Durham area is in non-attainment for EPA's new 8-hour ozone standard surround. Ozone contributes to smog, which can lead to asthma attacks and respiratory impairment in young children and the elderly. North Carolina's nuclear power plants supply emission-free power to the whole state and help improve the air quality.

Nuclear Energy in North Carolina

Page 2 of 2- July 2007

Nuclear Energy Prevents Emissions

Generating electricity with nuclear energy prevents the emission of pollutants like sulfur dioxide (SO₂) and nitrogen oxides (NO_x) and greenhouse gases like CO₂ associated with burning fossil fuels. The nuclear power plants in North Carolina avoided the emission of 223,200 tons of SO₂, 62,700 tons of NO_x and 39.5 million metric tons of CO₂ in the year 2006. (*Source: NEI/EPA*) Emissions of SO₂ lead to the formation of acid rain. NO_x is a key precursor of both ground level ozone and smog. Greenhouse gases, like CO₂, contribute to global warming.

For perspective, the 62,700 tons of NO_x avoided by the nuclear power plants in North Carolina is the amount of NO_x released in a

year by 3.3 million passenger cars. There are only 3.6 million cars registered in the state of North Carolina.

Potential Uprates at Nuclear Plants

With additional capital investment, more emission-free power can be generated at most existing nuclear power plants. This process of increasing power output capacity is called an "uprate." According to an analysis performed for the U.S. Department of Energy, uprates at North Carolina's nuclear power plants could supply three percent more electricity and avoid annual emissions of 3,300 tons of SO₂, 800 tons of NO_x and 850,000 metric tons of CO₂.

This fact sheet is also available at www.nei.org, where it is updated periodically.